

ABBREVIATIONS

CO --- Circulate Out
 CG --- Connection Gas
 CB --- Core Bit
 DC --- Depth Correction
 DS --- Directional Survey
 DST --- Drill Stem Test
 DTG --- Down Time Gas
 FC --- Filter Cake
 LAT --- Logged After Trip
 NB --- New Bit
 NDR --- No Data Recorded
 NR --- No Returns
 PP --- Pump Pressure
 RPM --- Rotary Speed
 SPM --- Pump Strokes
 TG --- Trip Gas
 TGR --- Trip Gas Recycle
 Vis --- Viscosity
 WI --- Water Loss
 WOB --- Weight on Bit
 WI --- Density Of Drill Fluid

LITHOLOGY MODIFIERS

///--- Anhydritic
 B --- Bentonitic
 ⊥ --- Calcareous
 ■ --- Carbonaceous, Coaly
 △ --- Dolomitic
 F --- Fossiliferous
 ~ --- Glauconitic
 ◇ --- Oolitic
 P --- Pyritic
 △ --- Siliceous

BENCH MARK

GEOLOGICAL SERVICES

HYDROCARBON

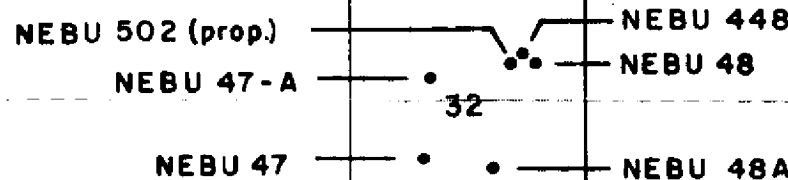
WELL LOG

OPERATOR Blackwood and NicholsWELL NE Blanco Unit 448

FIELD

LOCATION sec 32 T31N R7WCO./STATE San Juan Co., New MexicoELEVATION KB 6388' GL 6373'SPUD DATE 10/29/89INTERVAL LOGGED 2961' - 3266'DATE LOGGED 11/3 - 11/4/89LOGGING GEOLOGISTS Randy Laney, Danny WyckoffINSTRUMENTATION FID chromatograph and total gas detector, infrared CO₂ detector

WELL LOCATION



HYDROCARBON ANALYSIS

TOTAL GAS			Reported in Units	
10	100	1000	10	100
GAS CHROMATOGRAPHY			Reported in PPM	
100	1000	10000	100	1000
OIL INDICATOR			Dimension Less	
0.01	0.1	1.0	0.01	0.1

LEGEND - GAS CURVES

TOTAL GAS	T
METHANE	1
ETHANE	2
PROPANE	3
ISO & N-BUTANE	4
OIL INDICATOR $\frac{C_2 + C_3}{C_1}$	0

RATE OF PENETRATION

Min. Ft.

DEPTH

Poreosity

CORRECTION

BENTONITE

SILT

SH

COAL

CHT

SALT

ANHY

DOL

LS

IGNEOUS

META

TUFF

NO SAMPLE

NS

LITHOLOGY OBSERVED

%

CORRECTION

BENTONITE

SILT

SH

COAL

CHT

SALT

ANHY

DOL

LS

IGNEOUS

META

TUFF

NO SAMPLE

NS

LITHOLOGY OBSERVED

%

CORRECTION

BENTONITE

SILT

SH

COAL

CHT

SALT

ANHY

DOL

LS

IGNEOUS

META

TUFF

NO SAMPLE

NS

LITHOLOGY OBSERVED

%

CORRECTION

BENTONITE

SILT

SH

COAL

CHT

SALT

ANHY

DOL

LS

IGNEOUS

META

TUFF

NO SAMPLE

NS

LITHOLOGY OBSERVED

%

CORRECTION

BENTONITE

SILT

SH

COAL

CHT

SALT

ANHY

DOL

LS

IGNEOUS

META

TUFF

NO SAMPLE

NS

LITHOLOGY OBSERVED

%

CORRECTION

BENTONITE

SILT

SH

COAL

CHT

SALT

ANHY

DOL

LS

IGNEOUS

META

TUFF

NO SAMPLE

NS

LITHOLOGY OBSERVED

%

CORRECTION

BENTONITE

SILT

SH

COAL

CHT

SALT

ANHY

DOL

LS

IGNEOUS

META

TUFF

NO SAMPLE

NS

LITHOLOGY OBSERVED

%

CORRECTION

BENTONITE

SILT

SH

COAL

CHT

SALT

ANHY

DOL

LS

IGNEOUS

META

TUFF

NO SAMPLE

NS

LITHOLOGY OBSERVED

%

CORRECTION

BENTONITE

SILT

SH

COAL

CHT

SALT

ANHY

DOL

LS

IGNEOUS

META

TUFF

NO SAMPLE

NS

LITHOLOGY OBSERVED

%

CORRECTION

BENTONITE

SILT

SH

COAL

CHT

SALT

ANHY

DOL

LS

IGNEOUS

META

TUFF

NO SAMPLE

NS

LITHOLOGY OBSERVED

%

CORRECTION

BENTONITE

SILT

SH

COAL

CHT

SALT

ANHY

DOL

LS

IGNEOUS

META

TUFF

NO SAMPLE

NS

LITHOLOGY OBSERVED

%

CORRECTION

BENTONITE

SILT

SH

COAL

CHT

SALT

ANHY

DOL

LS

IGNEOUS

META

TUFF

NO SAMPLE

NS

LITHOLOGY OBSERVED

%

CORRECTION

BENTONITE

SILT

SH

COAL

CHT

SALT

ANHY

DOL

LS

IGNEOUS

META

TUFF

NO SAMPLE

NS

LITHOLOGY OBSERVED

%

CORRECTION

BENTONITE

SILT

SH

COAL

CHT

SALT

ANHY

DOL

LS

IGNEOUS

META

TUFF

NO SAMPLE

NS

LITHOLOGY OBSERVED

%

CORRECTION

BENTONITE

SILT

SH

COAL

CHT

SALT

ANHY

DOL

LS

IGNEOUS

META

TUFF

NO SAMPLE

NS

LITHOLOGY OBSERVED

%

CORRECTION

BENTONITE

SILT

SH

COAL

CHT

SALT

ANHY

DOL

LS

IGNEOUS

META

TUFF

NO SAMPLE

NS

LITHOLOGY OBSERVED

%

CORRECTION

BENTONITE

SILT

SH

COAL

CHT

SALT

ANHY

DOL

LS

IGNEOUS

META

TUFF

NO SAMPLE

NS

LITHOLOGY OBSERVED

%

CORRECTION

BENTONITE

SILT

SH

COAL

CHT

SALT

ANHY

DOL

LS

IGNEOUS

META

TUFF

NO SAMPLE

NS

LITHOLOGY OBSERVED

%

CORRECTION

BENTONITE

SILT

SH

COAL

CHT

SALT

ANHY

DOL

LS

IGNEOUS

META

TUFF

NO SAMPLE